

Appl. No.: 10/599,074

Amdt. Dated: 3/27/08

Reply to Office Action Mailed: 12/27/07

AMENDMENTS TO THE CLAIMS

Applicant requests entry of the amendments shown in the marked-up listing of claims that follows. This listing of claims, in which claims 1, 7, and 8 are independent claims, replaces all prior versions, and listings, of the claims in the application. Applicant reserves the rights to reinstate any canceled claims or to pursue any canceled claims in a timely filed continuation application.

1. (Currently Amended) An [[E]]electron window [[[1)]] for a liquid-metal anode [[[2)]]], the electron window comprising:

~~in the form of a~~ membrane [[[4)]]], which has ridges [[[10)]]] and depressions [[[11)]]],
wherein the membrane ~~characterized in that it has an embossed structure and a~~
thickness in a range of about 11 μm to about 50 μm , and
wherein both the ridges [[[10)]]] and the depressions [[[11)]]] are part-surfaces which are
connected to each other via connection flanks [[[13)]]],
wherein the depressions [[[11)]]] and/or the ridges [[[10)]]] are one of

(a) from about 10 μm to about 95 μm high and

(b) from about 105 μm to about 250 μm high.

2. (Currently Amended) An [[E]]electron window [[[1)]] according to claim 1, wherein
~~characterized in that the membrane [[[4)]] consists of a metal foil, a diamond film, and a ceramic~~
~~material or a monocrystal, in particular made of cubic boron nitride.~~

3. (Currently Amended) An [[E]]electron window [[[1)]] according to claim 1, wherein
~~characterized in that the depressions [[[11)]]] and/or the ridges [[[10)]]] are arranged in a virtual~~
~~regular grid structure [[[14)]]].~~

4. (Currently Amended) An [[E]]electron window [[[1)]] according to claim 1, wherein
~~characterized in that the depressions [[[11)]]] and/or the ridges [[[10)]]] are formed as polygonal~~
~~units, in particular square or hexagonal units.~~

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5. (Currently Amended) An ~~[[E]]~~electron window ~~[[(1)]]~~ according to claim 1, wherein ~~characterized in that it~~ the electron window is formed bent, ~~in particular like a cut-out section of a cylinder surface.~~

6. (Canceled)

7. (Currently Amended) A ~~Liquid-metal~~ liquid-metal anode ~~[[(2)]]~~ with a pump, a cooling system, a line ~~[[(9)]]~~ and a liquid metal which can be pumped through the line ~~[[(9)]]~~ by means of the pump, wherein there is arranged in the line ~~[[(9)]]~~ an anode module into which an electron window ~~[[(1)]]~~ according to claim 1 is inserted, wherein the electron window ~~[[(1)]]~~ is inserted into the line ~~[[(9)]]~~ such that the ridges ~~[[(10)]]~~ point towards the inside of the line ~~[[(9)]]~~ and are in contact with the liquid metal.

8. (Currently Amended) An X-radiator, comprising:

[[with]] an electron source ~~for the emission of~~ configured to emit electrons; and
a liquid-metal anode ~~[[(2)]]~~ according to claim 7 that is configured to emit ~~emitting~~ X-ray beams when struck by the electrons emitted from the electron source.

9. (Canceled)

10. (Currently Amended) An ~~[[E]]~~electron window according to claim 1~~claim 6~~, wherein the depressions and/or ridges are 50 µm high and the membrane is 20 µm thick.

11. (New) An electron window according to claim 2, wherein the membrane is made of cubic boron nitride.

12. (New) An electron window according to claim 4, wherein the depressions and/or the ridges are formed as square units.

13. (New) An electron window according to claim 4, wherein the depressions and/or the ridges are formed as hexagonal units.

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14. (New) An electron window according to claim 5, wherein the electron window is bent like a cut-out section of a cylinder surface.